ERS Report Summary

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Farm Household Well-Being

Comparing Consumption- and Income-Based Measures

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The traditional measures of a household's economic well-being are money income and wealth, both of which indicate the financial resources available to the household. An alternative measure, indicating the current standard of living enjoyed by a household, is the household's consumption of goods and services. USDA's Economic Research Service (ERS) has long published estimates of farm household income and wealth based on responses to USDA's annual survey of farms, the Agricultural Resource Management Survey (ARMS), a joint effort by ERS and the USDA National Agricultural Statistics Service. This report presents, for the first time, estimates of consumption for farm households, calculated using new survey questions in ARMS, and compares them to consumption estimates for all U.S. households, calculated from the Consumer Expenditure Survey collected by the Bureau of Labor Statistics.

What Is the Issue?

Since 1998, median income for farm operator households has exceeded that of all U.S. households by 3 to 21 percent, and median farm household wealth has been 4-5 times that of all U.S. households. Farm household income fluctuates from year to year more than the income of the typical U.S. household, due to variable farm yields and market prices. Because of their reliance on farm income, farm households tend to have lower income at the low end of the distribution and higher income at the high end of the distribution, compared with all U.S. households. Income measures suggest more farm households are disadvantaged: about 5-8 percent of farm households have negative household income each year, compared with around 0.1 percent of all U.S. households. And the official U.S. poverty rate, based on comparing household income to the census poverty threshold, is 14.4 percent for persons in farm households compared to 12.3 percent for persons in all U.S. households.

Because farm income is so variable, consumption is likely to be a more stable indicator of the household's long-term standard of living than is its current income level. Households dependent on variable income sources are less likely than others with more stable incomes to adjust household consumption—which depends on longer term income expectations—in response to annual variations in household income—which are more likely to be temporary. When income is temporarily low, households with substantial wealth can draw down or borrow against their savings to maintain their standard of living; when income is temporarily high, they will be less inclined to expand discretionary purchases than similar households with more stable sources of income.

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

What Did the Study Find?

We cannot track individual households over time to measure changes in consumption as income varies from year to year. Instead, we examined differences in spending behavior among all farm households during 2006. As expected, farm households consumed a larger share of current household income than all U.S. households when household income was low, but as household income increased, the increases in farm household consumption were smaller than for all U.S. households. To further test the role of variable household income on consumption, we compared two groups of farm households that vary in their exposure to income variability from self-employment—those operating farms with annual sales of $100,000 or more (for whom, in the aggregate, farm income contributes more than half of household income) and those operating farms with annual sales of less than $10,000 and an operator with a primary occupation other than farming (for whom, in the aggregate, farm income contributes a small negative amount to household income). We found a similar pattern—on average, the $100,000+ farm households had higher consumption when incomes were low and lower consumption when incomes were high relative to households with similar levels of income operating very small rural-residence farms.

When households are ranked from lowest to highest based on current income levels, farm households have higher income per person than all U.S. households at all but the lowest level of household income. The net effect of predominantly higher income, but a lower tendency to increase consumption as income increases, is that the farm household distribution of consumption is very similar to that of all U.S. households. Farm households appear to have higher consumption at the low end of the distribution, and lower consumption at the upper end of the distribution, compared with all U.S. households. Analogously, the relative levels of disadvantage are reversed when we switch from an income-poverty rate to a consumption-poverty rate, calculated by comparing household consumption to the census poverty threshold. The consumption poverty rate is lower for persons in farm households than for persons in all U.S. households. The divergence in income and consumption measures between farm and all U.S. households is even greater when we focus on households that operate farms with sales of $100,000 or more, which are more exposed to the income risks of self-employment.

At the individual household level, there is not a close mapping between the income and consumption measures for farm households compared with U.S. households. Among households that rank in the bottom 20 percent for household income, farm households are far more likely to rank high in the consumption distribution than are all U.S. households, indicating farm households are more likely either to view their income as temporarily low, or to have sufficient wealth to spend more than they earn. Analogously, among households that rank in the top 20 percent of the income distribution, farm households are far more likely to rank low in the consumption distribution than are U.S. households, indicating they view their current income as temporarily high. The greater divergence implies that income is a less effective proxy for consumption—an indicator of long-term standard of living—for farm households than for most other U.S. households. Consequently, consumption indicators are an important complement to income indicators for understanding farm household well-being.

How Was the Study Conducted?

The principal source for farm household data is USDA's annual ARMS survey, which collects information on farm finances—including farm business income, household income, farm and nonfarm wealth, and living expenses—from a nationally representative sample of farm operator households. To explore farm household well-being in more detail, ERS in 2003 added to ARMS questions related to household consumption. The principal source for data on living expenses for all U.S. households is the Consumer Expenditure Survey collected by the Bureau of Labor Statistics. In addition, we use data from the Current Population Survey and Survey of Consumer Finances to provide income and wealth measures for all U.S. households over 1995-2006.